



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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IN REPLY PLEASE

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October 9, 2014

TO: Each Supervisor

FROM: Gail Farber *Gail Farber*
Director of Public Works

Cynthia A. Harding, M.P.H. *Cynthia A. Harding*
Interim Director of Public Health

BOARD MOTION OF SEPTEMBER 2, 2014, AGENDA ITEM 43-A USE OF CHLORAMINES AS A DISINFECTANT BY PUBLIC WATER SYSTEMS

On September 2, 2014, the Board directed the Departments of Public Works and Public Health to provide a joint report that includes: (1) water systems currently serving the Los Angeles County residents that use chloramines as a disinfectant, (2) an assessment of its effect on water pipes as a corrosive agent, (3) any legal actions taken or pending against water suppliers providing water to Los Angeles County residents, and (4) health issues and benefits associated with the use of chloramines. Following is our response.

Background

Chloramines are a combination of chlorine and ammonia and are used in the disinfection of drinking water. They provide long-lasting disinfection potency as the water moves through pipes preventing the growth of harmful bacteria, viruses, and other organisms that have the potential to cause serious illness and/or death. Chloramines have been used for drinking water disinfection for almost 90 years and their use is regulated by Federal and State drinking water regulations. According to the United States Environmental Protection Agency (EPA), water that is disinfected with chloramines and meets all the Federal water quality regulatory standards is safe to use for drinking, cooking, bathing, and other household uses.

However, in recent years, some customers of water agencies in Southern California have been raising questions about the potential impacts of chloramines on health and on corrosion of copper plumbing.

Water Systems Using Chloramines in Los Angeles County

According to the State Water Resources Control Board, Division of Drinking Water in Los Angeles County, there are 74 water systems using chloramines for the disinfection of drinking water (see Attachment A).

Assessment of Its Effects as a Corrosive Agent

Chloramines can be corrosive for household plumbing by increasing the acidity of the water (lowering pH). This phenomenon can be due to changes in the chemical property of treated water or potential growth of specific bacteria that thrives in the presence of ammonia in the water distribution system (nitrification). Both of these situations are well known to water professionals and are controlled through treatment and operational processes.

Water utilities are required to test their water for corrosivity at the water source and for lead and copper levels at high-risk selected homes. If test results indicate that the water is not meeting Federal EPA standards for corrosivity of copper plumbing, the water utility must adjust its water treatment process to ensure compliance with the standards. Compliance with the standards indicates that the water is noncorrosive to household plumbing.

We contacted three major water wholesale and/or retail agencies (Metropolitan Water District of Southern California, Los Angeles Department of Water and Power, and Castaic Lake Water Agency) that serve the majority of Los Angeles County residents and use chloramines for disinfection of their treated water. They stated that they are not aware of any corrosion-related plumbing leaks in their service areas as a result of the use of chloramines as a disinfectant. As part of their control measures, the agencies control pH at their treatment plants and proactively monitor their distribution systems for nitrification.

Legal Actions

To our knowledge, there are no active legal cases in Los Angeles County regarding the use of chloramines and corrosion. However, there are at least three active cases in Orange County, and we are aware of two tort claims that have been filed in Los Angeles County, one regarding Metropolitan Water District and another regarding Las Virgenes Municipal Water District, from insurance companies seeking indemnity for damages from water leaks in copper piping.

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Health Issues and Benefits

There are no known health issues related to the use of chloramines in the disinfection of drinking water. According to the EPA, water disinfected with chloramines that meets EPA regulatory standards is safe for potable uses. Decades of use in the United States, Canada, and Great Britain show chloramines are a safe and effective secondary drinking water disinfectant. Furthermore, water disinfected with chloramines will have less trihalomethane levels than water disinfected with chlorine.

If you have any questions, please contact me or your staff may contact Adam Ariki at (626) 300-3306 or aaariki@dpw.lacounty.gov.

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Attach.

cc: Chief Executive Office (Rita Robinson)
County Counsel
Executive Office

Attachment A

Water Systems Using Chloramines in Los Angeles County

- Azusa Light & Water
- Bellflower Home Gardens Water Company
- Bellflower Municipal Water System
- Bellflower Somerset Mutual Water Company
- California American Water Company - Baldwin Hills
- California American Water Company - San Marino
- California Water Service Company - Dominguez
- California Water Service Company - East Los Angeles
- California Water Service Company - Hermosa/Redondo
- California Water Service Company - Palos Verdes
- Castaic Lake Water Agency
- City of Alhambra
- City of Arcadia
- City of Beverly Hills
- City of Burbank
- City of Cerritos
- City of Compton
- City of Covina
- City of El Segundo
- City of Glendale
- City of Glendora
- City of Hawthorne
- City of Huntington Park
- City of Inglewood
- City of La Verne
- City of Lomita
- City of Long Beach
- City of Lynwood
- City of Manhattan Beach
- City of Monrovia
- City of Montebello
- City of Paramount
- City of Pasadena
- City of San Fernando
- City of Santa Clarita
- City of Santa Fe Springs
- City of Santa Monica
- City of Sierra Madre
- City of Signal Hill
- City of South Pasadena

- City of Torrance
- Foothill Municipal Water District
- Golden State Water Company - Claremont
- Golden State Water Company - San Dimas
- Golden State Water Company - South San Gabriel
- Golden State Water Company - Southwest
- La Canada Irrigation District
- Los Angeles County Waterworks District No. 21 (Kagel Canyon)
- Los Angeles County Waterworks District No. 29 (Malibu) & Marina del Rey
- Los Angeles County Waterworks District No. 36 (Val Verde)
- Las Flores Water Company
- Las Virgenes Municipal Water District
- Lincoln Avenue Water Company
- Los Angeles Department of Water & Power
- Maywood Mutual Water Company #1
- Maywood Mutual Water Company #2
- Maywood Mutual Water Company #3
- Mesa Crest Water Company
- Metropolitan Water District
- Newhall – Castaic
- Newhall – Pinetree
- Newhall – Tesoro
- Park Water Company - Bellflower/Norwalk
- Park Water Company - Compton
- Park Water Company - Lynwood
- Rowland Water District
- Rubio Canon Land & Water Association
- Suburban Water Systems - Covina Knolls
- Suburban Water Systems - La Mirada
- Suburban Water Systems - San Jose Hills
- Three Valleys Municipal Water District
- Valencia Heights Water Company
- Valley Water Company
- Walnut Valley Water District

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WWD

AGN. NO. 43 - A

MOTION BY SUPERVISOR MICHAEL D. ANTONOVICH

SEPTEMBER 2, 2014

USE OF CHLORAMINES AS A DISINFECTANT BY PUBLIC WATER SYSTEMS

Recent reports and legal actions against water districts raise questions about the use of chloramines as a disinfectant in public water supplies. While chloramines appear to have less adverse health impacts than chlorine, there is evidence that chloramine is corrosive to copper pipes and cause pin hole leaks.

I, THEREFORE, MOVE that the Board of Supervisors direct the Departments of Public Works and Public Health to provide a joint report back in 30 days. This report should include:

1. Water systems currently serving Los Angeles County residents that use chloramines as a disinfectant;
2. An assessment of its effect on water pipes as a corrosive agent;
3. Any legal actions taken or pending against water suppliers providing water to Los Angeles County residents; and
4. Health issues and benefits associated with the use of chloramines.

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s:\motions\Chloramines Disinfectant

MOTION

MOLINA

RIDLEY-THOMAS

YAROSLAVSKY

ANTONOVICH

KNABE
